

# Weekly Report 09/08/2014 - 09/14/2014

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## 1 SUMMARY

This week I focused on the topk project.

## 2 PROJECTS

### 2.1 Project 1 - TopK Pacific Vis Submission

The redesign of clusters and corresponding interaction is done. But the rank difference view does not make much sense in non-successive clusters. Casting (an interaction designed by me that applies the same visualization to the other view, say, users cast the itemset visualization in the rank difference view to the initial rank view) it to the initial rank view would face the same cluster design issue. We're still working on better design. Yuming and I discussed back and forth several times for better representation of clusters, inter-cluster relationship.

I read the learning material of entropy transfer, which can be used to evaluate the difference of two adjacent ranked list.

I also reviewed existing papers on ranking (RankExplorer [2] and LineUp [1]). Neither of them defined the tasks in ranking analysis. But we defined three-level rank analysis tasks, namely pattern of a single item, relationship of a bunch of clusters and fluctuation of the whole ranking. We will elaborate the three-level tasks to more specific tasks in the paper.

For the paper part, I rewrote the abstraction and introduction sections, reorganized the visualization section and user study section.

### 2.2 Project 2 - Data Inspection

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## 3 PAPER READING

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## 4 MISCELLANEOUS

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## 5 TO DO LIST

1. Redesign Top-K visualization.

## REFERENCES

- [1] S. Gratzl, A. Lex, N. Gehlenborg, H. Pfister, and M. Streit. Lineup: Visual analysis of multi-attribute rankings. *Visualization and Computer Graphics, IEEE Transactions on*, 19(12):2277–2286, 2013.
- [2] C. Shi, W. Cui, S. Liu, P. Xu, W. Chen, and H. Qu. Rankexplorer: Visualization of ranking changes in large time series data. *Visualization and Computer Graphics, IEEE Transactions on*, 18(12):2669–2678, 2012.

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